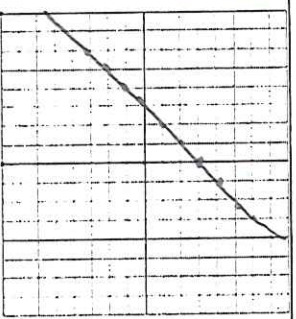
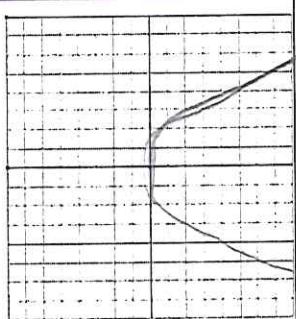
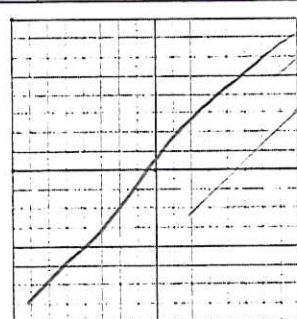
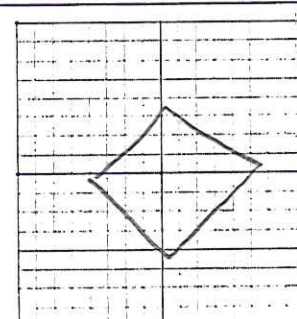
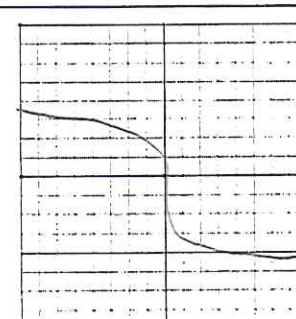


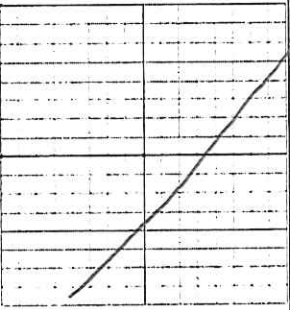
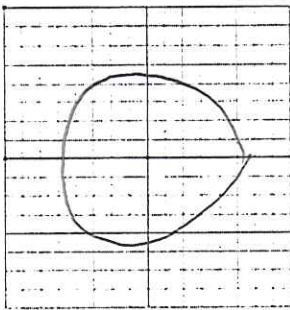
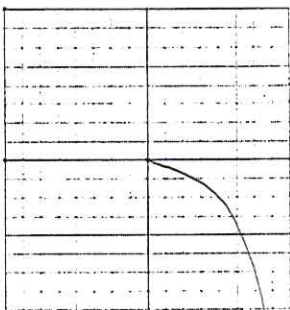
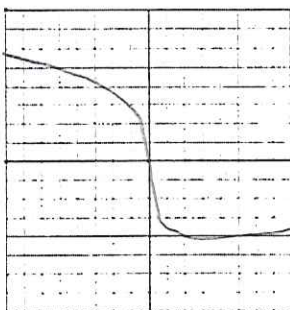
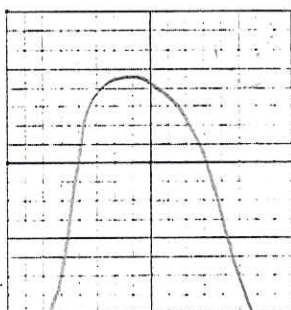
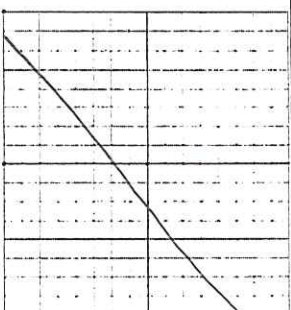
# Determine if an equation/graph is linear

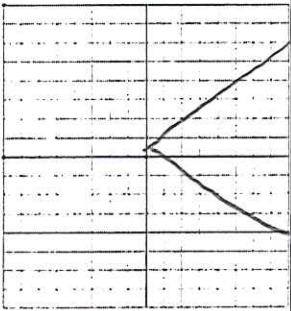
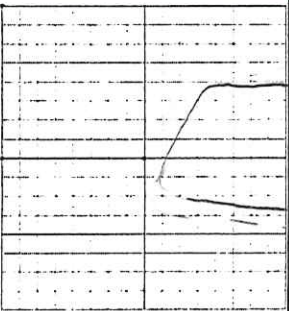
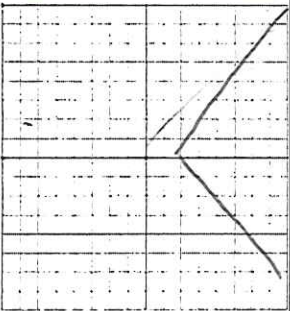
## Computer Lab Graphing Assignment

Exercises 10-29-10  
Per 6

**Directions:** Use "grapher" to graph each equation below. Use the coordinate plane to sketch a graph of the equation. Then determine if the equation and graph are linear or non-linear.

EQUATION	WHAT TO ENTER	GRAPH	LINEAR OR NON-LINEAR?
$y = x + 3$	$y = x + 3$		linear
$y = x^2$	$y = x^2$		non linear
$y = -3x - 1$	$y = -3x - 1$		linear
$ x  +  y  = 4$	$\text{abs } x + \text{abs } y = 4$		non linear
$y = x^3$	$y = x^3$		non linear

$x + y = 5$	$x + y = 5$		linear
$x^2 + y^2 = 16$	$x^2 + y^2 = 16$		non linear
$y = \sqrt{x}$	$y = \sqrt{x}$ You will find the square root symbol under edit – special characters.		non linear
$y = x^3$	$y = x^3$		non linear
$x = y^2 - 2$	$x = y^2 - 2$		non linear
$y = 0.5x - 2$	$y = 0.5x - 2$		linear

$y =  x $	$y = \text{abs } x$		linear
$2x + 3y = 0$	$2x + 3y = 0$		linear
$y = x^4 - 2x^2 + 2$	$y = x^4 - 2x^2 + 2$		non linear
Write your own equation	$y = 2x + 3$		linear
Write your own equation	$y = \text{abs } x^2$		linear



